

Billing Code: 8025-01

### SMALL BUSINESS ADMINISTRATION

SBA Lender Risk Rating System

Docket No: SBA-2014-0003

AGENCY: Small Business Administration.

ACTION: Notice of revised Risk Rating System; request for comments.

SUMMARY: This notice implements changes to the Small Business Administration's

(SBA's) Risk Rating System. The Risk Rating System is an internal tool to assist SBA in

assessing the risk of the SBA loan operations and loan portfolio of each active 7(a)

Lender and Certified Development Company (CDC) SBA loan operations and loan

portfolio. Consistent with industry best practices, SBA recently redeveloped the model

used to calculate the composite Risk Ratings to ensure that the Risk Rating System

remains current and predictive as technologies and available data evolve. SBA is

publishing this notice with a request for comments to provide the public with an

opportunity to comment.

DATES: This notice is effective [INSERT DATE OF PUBLICATION IN THE

FEDERAL REGISTER].

Comment Date: Comments must be received on or before [INSERT DATE 60 DAYS

AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments, identified by Docket number SBA-2014-

0003 by using any of the following methods:

1

- Federal eRulemaking Portal: <a href="http://www.regulations.gov">http://www.regulations.gov</a>. Identify comments by
   "Docket Number SBA-2014-0003, SBA Lender Risk Rating System," and follow the instructions for submitting comments.
- Mail: Brent Ciurlino, Director for Office of Credit Risk Management, U.S. Small Business Administration, 409 3rd Street, SW, 8th Floor, Washington, DC 20416.
- Hand Delivery/Courier: Brent Ciurlino, Director for Office of Credit Risk
   Management, U.S. Small Business Administration, 409 3rd Street, SW, 8th Floor,
   Washington, DC 20416.

All comments will be posted on <a href="http://www.Regulations.gov">http://www.Regulations.gov</a>. If you wish to include within your comment confidential business information (CBI) as defined in the Privacy and Use Notice/User Notice at <a href="http://www.Regulations.gov">http://www.Regulations.gov</a> and you do not want that information disclosed, you must submit the comment by either Mail or Hand Delivery and you must address the comment to the attention of Brent Ciurlino, Director for Office of Credit Risk Management, U.S. Small Business Administration. In the submission, you must highlight the information that you consider is CBI and explain why you believe this information should be held confidential. SBA will make a final determination, in its discretion, of whether the information is CBI and, therefore, will be published or not.

FOR FURTHER INFORMATION CONTACT: Brent Ciurlino, Director, Office of Credit Risk Management, U.S. Small Business Administration, 409 Third Street, SW, 8th Floor, Washington, DC 20416, (202) 205-3049.

### SUPPLEMENTARY INFORMATION:

### I. Background Information

### (A) Introduction to the Risk Rating System

The Risk Rating System is an internal tool that uses data in SBA's Loan and Lender Monitoring System (L/LMS), borrower data provided by Dun & Bradstreet (D&B), and certain macroeconomic factors to assist SBA in assessing the risk of the SBA loan performance of each 7(a) Lender and CDC (each, an SBA Lender) on a uniform basis and identifying those SBA Lenders whose portfolio performance, or other lender-specific risk-related factors, may demonstrate the need for additional SBA monitoring or other action. The Risk Rating System also serves as a vehicle to measure the aggregate strength of SBA's overall 7(a) loan and CDC loan (also known as a 504 loan) portfolios and to assist SBA in managing the related risk. In addition, SBA uses Risk Ratings to make more effective use of its lender review and assessment resources.

Under SBA's Risk Rating System, SBA assigns all SBA Lenders a composite Risk Rating of 1 to 5, based on empirical data. The rating reflects SBA's measurement of the SBA Lender's potential portfolio risk. In general, a rating of 1 indicates least risk and that the least degree of SBA oversight is likely needed, while a 5 rating indicates highest risk and that the highest degree of SBA oversight is likely needed. The composite rating is calculated using several component variables. The component variables were developed using step-wise regression analysis to determine the components that provided a linear regression formula that was most predictive of actual purchases over a one year period.

On May 1, 2006, SBA published a notice and request for comment in the Federal Register seeking comments on the proposed Risk Rating System (72 FR 25624). A final notice was published in the Federal Register on May 16, 2007 (72 FR 27611). On March

1, 2010 SBA published a notice describing revisions to the Risk Rating System (75 FR 9257). SBA also published a correction to the revised Risk Rating System notice on March 18, 2010 (75 FR 13145).

### (B) Redevelopment

Typically, under industry best practices, custom credit scoring models are redeveloped approximately every three to five years to reflect changing conditions, portfolio shifts, and to incorporate additional data that may have become available. This redevelopment is consistent with such practices and is necessary to ensure that SBA's Risk Ratings provide an accurate measurement of lenders' SBA portfolio performance. SBA's portfolio has changed significantly over the past several years; the portfolio has continued to grow, and the composition of loan products (delivery methods) has migrated. In addition, the economy and, in particular, the small business lending environment has changed since the last redevelopment in 2010.

During this redevelopment, SBA reviewed over 200 potential variables from SBA's L/LMS archive along with nearly 400 potential variables from D&B sources. SBA selected these potential variables based on its experience working with such models over the past several years. The D&B variables included attributes from its detailed trade repository providing the highest level of trade data resolution. The variables were then run through rigorous statistical techniques and the most predictive combinations of variables were chosen as components in the redeveloped Risk Rating model.

### II. The Redeveloped Risk Rating Model

SBA followed common industry best practices and internal control standards when redeveloping and validating the Risk Rating model. The redeveloped model was

independently validated by personnel other than the staff responsible for the redevelopment. The redeveloped model used to calculate the composite Risk Ratings is an updated version of the previous models. Like the previous models, it is a custom credit scoring model that predicts the likelihood of an SBA Lender's loan purchases over the next 12 months. However, whereas previous models relied primarily on SBA Lender-level portfolio data (e.g., Past 12-Months Actual Purchase Rate, Gross Delinquency Rate, 6 Month Liquidation Rate), the redeveloped model relies primarily on loan-level and borrower data. The new model predicts the probability of default for each loan in an SBA Lender's portfolio and multiplies this probability by the outstanding loan amount at the time the ratings are formulated.

The most notable changes in the redeveloped Risk Rating System are:

- 1. Risk Rating based on loan-level projected purchase rates (PPRs). Unlike in previous models, which used a combination of lender-level loan portfolio data and loan-level data to predict an SBA Lender's overall probability of purchase requests, the redeveloped model computes the PPR of each individual SBA-guaranteed loan in an SBA Lender's portfolio. As described further in Section IV below, the individual loan-level PPRs are then aggregated to obtain the SBA Lender's overall PPR, which is then used to calculate the composite Risk Rating [1-5].
- 2. Risk Rating no longer determined by peer group. In previous models, SBA reported Risk Ratings by peer groups based on SBA loan portfolio size. When the Risk Rating System was first developed, an SBA Lender's Risk Rating was a measure of how each SBA Lender's loan performance compared to the loan performance of its similarly-sized peers. In the redeveloped model, Risk Ratings are no longer based on a relative

- scale. Testing during redevelopment revealed that this method of calculating the Risk Ratings is more predictive of performance than the previous peer group scoring because the Risk Ratings are now based solely on a lender's PPR from its specific portfolio.
- 3. Segmentation of the overall portfolios. Prior models used only two rating formulas: one for the 7(a) program and one for the CDC program. The components and weightings of components were the same within the 7(a) Lender population and within the CDC population. The redeveloped model uses seven rating formulas (five for 7(a) Lenders; two for CDCs) based on a segmentation approach. Statistical analysis showed that grouping loans of similar types increased the predictiveness of the overall system. Loans are segmented by loan type (revolver-type or fixed-end), current payment status, and loan size. A loan's PPR is calculated based on a combination of components that is uniquely predictive for loans in that segment. See paragraph IV(B) for a detailed discussion of the seven segments and the components used in each segment.
- 4. Updated components in the regression formulas. The redeveloped model continues to use loan-level data (provided by the SBA Lenders and SBA's own data) and external risk assessment data (provided by D&B) that is derived from third party business and consumer credit bureau data. Several of the new components are based on borrower payment trends, similar to the information used to compute the Dollar Weighted Average Financial Stress Score (FSS) component in the previous model. For example, several of the new components incorporate information relating to borrower trade accounts. A trade account records current information on a relationship between a supplier and purchaser. D&B collects and aggregates all available trade accounts on a monthly basis for its entire global database of commercial entities.

In addition, two new components in the redeveloped model utilize macroeconomic data. Macro-economic components add a new dimension to the model and improve the overall predictive ability. The contributions of more than 20 such variables were analyzed. State Housing Price Index and Unemployment Rate were selected based on the level and reliability of their contributions. These two new components add predictive value to the Risk Rating model.

The redeveloped Risk Rating is one of the initial steps in implementing SBA's new oversight framework. In the future, SBA plans to use the Risk Rating in conjunction with other performance benchmarks that are currently under development. These new performance benchmarks will be used to assess SBA Lenders in multiple categories. For 7(a) Lenders, the categories are expected to include performance, asset management, regulatory compliance, risk management, and other relevant risk related items; the categories for CDCs are expected to include solvency, management, asset quality and servicing, regulatory compliance, and technical issues and mission. SBA will provide more information on the new performance benchmarks in the future.

### III. Request for Comments

This notice provides program participants and other parties with an explanation of the components and a description of other modeling enhancements. SBA is soliciting comments on all aspects of this notice, including but not limited to the components and enhancements. These changes will be effective upon publication of this notice, and will be incorporated in the Risk Rating Lender Portal update in May, for the quarter ending March 31, 2014.

#### IV. Text of the SBA Lender Risk Rating System

### (A) Overview

Under SBA's Risk Rating System, SBA assigns all SBA Lenders a composite Risk Rating. The composite rating reflects SBA's assessment of the SBA Lender's potential risk. It is based on the loan-level probability of purchase over the next 12 months, as calculated by SBA.

The Risk Rating System assigns each SBA-guaranteed loan a projected purchase rate using a unique set of components that SBA has determined to be predictive for that type of loan (see further detail below). Each individual loan-level PPR is then multiplied by the total outstanding balance of the loan in order to approximate the SBA Lender's total exposure for its SBA loan portfolio. The sum of all of those values is an estimation of the total default dollars for the SBA portfolio of the SBA Lender in the next 12 months. That number is then divided by the total outstanding balances of all loans in the above calculation to obtain the SBA Lender's overall PPR. SBA then assigns a composite rating of 1 to 5 based on the SBA Lender's overall PPR with geometrically sequenced category thresholds. Geometrically sequenced categories contain thresholds that are a multiple of the prior category. The category boundaries represent a doubling of the prior category (with the exception of the "zero" threshold). Geometric categorizations aim to delineate a non-linear distribution more evenly.

SBA updates the Lender Risk Ratings on a quarterly basis, using refreshed SBA Lender data. SBA generally does not intend to use the Risk Ratings as the sole basis for taking enforcement actions against SBA Lenders. The primary purpose is to focus SBA's oversight resources on those SBA Lenders whose portfolio performance or other lender-specific risk-related factors demonstrate a need for further review and evaluation by

SBA. All SBA Lenders have on-line access to their Risk Ratings and the loan-level components utilized to generate each loan's PPR. Information on gaining access to the Lender Portal is available at 72 FR 27611, 27619 (May 16, 2007) and on the Portal logon page at <a href="https://mi.dnb.com/PDPSBA/PDPLogin.aspx">https://mi.dnb.com/PDPSBA/PDPLogin.aspx</a>.

### (B) Segmentation

SBA's Risk Rating System uses a segmentation approach to calculate the PPR of each loan in an SBA Lender's SBA portfolio. The loan segments for the 7(a) Program are as follows:

- 1. Revolver-type loans in current payment status,
- 2. Revolver-type loans in non-current payment status,
- 3. Fixed-end loans in current payment status with an outstanding balance greater than or equal to \$350,000,
- 4. Fixed-end loans in current payment status with an outstanding balance less than \$350,000, and
- 5. Fixed-end loans in non-current payment status.

The loan segments for the CDC Program (also referred to as the 504 Program) are:

- 1. Loans in current payment status, and
- 2. Loans in non-current payment status.

A loan's PPR is calculated based on a combination of components that is uniquely predictive for the loans in that segment. The components used in each segment are as follows:

# 7(a) Segment 1 – Revolver-type loans in current payment status:

a) Percent of Accounts More Than 30 Days Past Due

b) Number of Trade Accounts
c) Current Small Business Predictive Score (SBPS)
d) Months on Book (MOB)
e) Outstanding Loan Balance
f) Loan Term
g) Average State-level Unemployment Rate
7(a) Segment 2 – Revolver-type loans in non-current payment status:
a) Percent of Accounts More Than 30 Days Past Due
b) Current SBPS
c) MOB
d) Outstanding Loan Balance
e) Loan Term
f) Loan Status
7(a) Segment 3 - Fixed-end loans in current payment status with an outstanding balance
greater than or equal to \$350,000:
a) Percent of Current Accounts
b) Percent of Accounts One or More Days Past Due
c) Number of Trade Accounts
d) Current SBPS
e) MOB
f) Average State-level Unemployment Rate
7(a) Segment 4 - Fixed-end loans in current payment status with an outstanding balance
less than \$350,000:

- a) Number of Trade Accounts
- b) Percent of Accounts More Than 30 Days Past Due
- c) Current SBPS
- d) MOB
- e) Gross Approved Amount
- f) Loan Term
- g) Average State-level Unemployment Rate

# 7(a) Segment 5 - Fixed-end loans in non-current payment status:

- a) Number of Trade Accounts
- b) Percent of Accounts More Than 30 Days Past Due
- c) Current SBPS
- d) MOB
- e) Gross Approved Amount
- f) Loan Term
- g) Loan Status
- h) Average State-level Unemployment Rate

## <u>504 Segment 1 - Loans in current payment status:</u>

- a) Percent of Current Accounts
- b) Average Percent of Dollars More Than 30 Days Past Due
- c) Percent of Accounts One or More Days Past Due
- d) Number of Trade Accounts
- e) Current SBPS
- f) MOB

g) State Housing Price Index

504 Segment 2 - Loans in non-current payment status:

- a) Business Age
- b) Number of Trade Accounts
- c) Current SBPS
- d)MOB
- e) Loan Status
- f) State Housing Price Index

The components were selected through statistical analysis using step-wise logistic regression to identify the combination of variables that are the most predictive for each segment of loans. The new model is "multivariate," meaning that an SBA Lender's PPR (and thus its Risk Rating) is based on a combination of all components in the model. Each of the components is described in more detail in the Rating Components section below.

# (C) Rating Components

SBA derives components from three types of data sources to calculate a loan's PPR: SBA loan data, D&B Borrower data, and macroeconomic data. The first category, made up of components (i) through (vi) below, includes detailed loan/borrower level information from SBA's database. The second category, which includes components (vii) through (xii) below, is information on the small business borrower from D&B's trade database. The third category, components (xiii) and (xiv) below, includes state level unemployment and housing price macroeconomic data. Each of the components is defined in detail below.

- (i) Loan Status: The Loan Status component captures the payment status of loans as of the rating date. If delinquent, this component indicates the delinquency "bucket" (e.g., 30 days past due, 60 days past due, etc.) at the time of rating. Other status values include whether the loan is in a deferment. A greater number of days past due contributes to a higher purchase risk.
- (ii) Loan Term: The Loan Term is the length of loan repayment period at origination. Loan Term is measured in months and purchase risk increases as the repayment term increases.
- (iii) Months on Book (MOB): The MOB is the number of months between the rating date and the date of the loan disbursement, up to a maximum of 120 months.

  MOB is based on the date of first disbursement. The purchase risk associated with MOB Risk level is "U"- shaped: loans at either end of the spectrum (very low or very high MOB) have the highest purchase risk.
- (iv) Outstanding Loan Balance: The Outstanding Loan Balance is the outstanding gross loan balance at the time of the rating date. This component is only used for revolver-type accounts that are currently in active status. The purchase risk associated with Outstanding Loan Balance has an inverted "U" shape. For revolvers, purchase risk was found to be consistently lowest for very small or very large balances and higher for moderate-sized balances.
- (v) Gross Approved Amount: The Gross Approved Amount is the total dollar amount of the loan at origination. A lower Gross Approval Amount is associated with a higher purchase risk.

- (vi) SBPS: The SBPS is a portfolio management credit score based upon a borrower's business credit report and principal's consumer credit report and is updated quarterly. SBPS is a proprietary calculation provided by Dun & Bradstreet, under contract with SBA, and is compatible with FICO's "Liquid Credit" origination score. This component provides an indication of the relative credit worthiness of a given borrower. A higher SBPS is associated with a lower purchase risk.
- (vii) Percent of Current Accounts: The Percent of Current Accounts is the percentage of the Borrower's trade accounts, as reported to D&B, that have been current over the past 24 months. It is a percentage that results from dividing the total number of accounts that have not been delinquent in the past 24 months by the total number of active accounts associated with a borrower. Higher values of this attribute are associated with lower purchase risk.
- (viii) Percent of Accounts 30 Days or More Days Past Due: The Percent of Accounts 30 Days or More Past Due is calculated using data from the D&B detail trade database for the last four months. This percentage results from dividing the total number of accounts which have been 30 or more days delinquent in the past four months by the total number of active accounts associated with a borrower. A higher value for this attribute is associated with a higher purchase risk.
- (ix) Percent of Accounts One or More Days Past Due: The Percent of Accounts
  One or More Days Past Due is calculated using data from the D&B detail trade database
  for the last four months. This percentage results from dividing the total number of
  accounts which have been one or more days delinquent in the past four months by the

total number of active accounts associated with a borrower. A higher value for this attribute is associated with a higher purchase risk.

(x) Average Percent of Dollars More Than 30 Days Past Due: The Average Percent of Dollars More Than 30 Days Past Due uses data for the last three months of trade history in the D&B database. This attribute is the ratio of the total dollars more than 30 days past due divided by the total dollars across a 3-month interval. A higher value for this attribute is associated with a higher purchase risk.

(xi) Number of Trade Accounts: The Number of Trade Accounts is the number of the Borrower's trade accounts on the D&B database in the last four months. A higher number of trade accounts is associated with a lower purchase risk.

(xii) Business Age: Business Age is the number of years the borrower has been operating. Age is based on data in the D&B database and is calculated as the difference between the current date and one of the following: the date of the most recent change of management control, if available, otherwise defaulting to the inception year of the business, if available, or to the first year the business was present on the D&B archive. A lower age contributes to a higher purchase risk.

(xiii) Average State-level Unemployment Rate: The Average State-level
Unemployment Rate is the ratio of unemployed to the civilian labor force in the
borrower's State, expressed as a percent. The source is Bureau of Labor Statistics (BLS),
Local Area Unemployment Statistics Database. The borrower's state is identified
through borrower's address fields in the SBA's database. The unemployment rate is
extracted directly from BLS reporting, which is updated monthly. A higher
unemployment rate in the borrower's state contributes to a higher purchase risk.

(xiv) State Housing Price Index (HPI): The State HPI is a broad measure of the movement in single-family house prices in the borrower's State. It is seasonally adjusted based on transactions involving conventional mortgages purchased or securitized by Fannie Mae or Freddie Mac and updated quarterly. The source is the Federal Housing Finance Agency. A higher HPI is associated with a lower purchase risk.

# (D) Lender Risk Rating

The SBA Lender Risk Rating (LRR) is a measure of predicted performance over the next 12 months. SBA uses its Risk Rating model to calculate an expected purchase rate and assign a composite rating of 1 to 5 to each SBA Lender. SBA may make adjustments to the composite rating based on results of reviews, third party information on an SBA Lender's operations, portfolio trends, and other information that could impact an SBA Lender's risk profile. (See section E "Overriding Factors" for further detail.) In general, a rating of 1 indicates least risk, and that the least degree of SBA oversight is likely needed, while a 5 rating indicates highest risk, and that the highest degree of SBA oversight is likely needed. Rating categories 2, 3, and 4 provide granularity for moderate levels of risk and the corresponding levels of necessary oversight.

## (E) Overriding Factors

As with prior LRR models, the redeveloped Risk Rating System allows for consideration of additional factors. The occurrence of these factors may lead SBA to conclude that an individual SBA Lender's composite rating, as calculated by the Risk Rating model, is not fully reflective of its true risk. Therefore, the Risk Rating System provides for the consideration of overriding factors, which may only apply to a particular SBA Lender or group of SBA Lenders, and permit SBA to adjust an SBA Lender's

calculated composite rating. The allowance of overriding factors in helping determine an SBA Lender's Risk Rating enables SBA to use key risk factors that are not necessarily applicable to all SBA Lenders, but indicate a greater or lower level of risk from a particular SBA Lender than that which the calculated rating provides.

Overriding factors may result from SBA Lenders' risk-based reviews/examinations and evaluations. SBA routinely conducts reviews of larger SBA Lenders, performs safety and soundness examinations of SBA Small Business Lending Companies (SBLCs) and Non-Federally Regulated Lenders (NFRLs), and uses certain evaluation measures for other SBA Lenders. Examples of other overriding factors that may be considered include, but are not limited to: enforcement or other actions of regulators or other authorities, including, but not limited to, Cease & Desist orders by, or related agreements with, federal financial regulators; capital adequacy levels not in conformity with federal financial regulators; secondary market issues and concerns; early loan default trends; purchase rate or projected purchase rate trends; abnormally high default, purchase or liquidation rates; denial of liability occurrences; lending concentrations; rapid growth of SBA lending; net yield rate significantly worse than average; violation of SBA Loan Program Requirements; inadequate, incomplete, or untimely reporting to SBA; and inaccurate submission of required fees or amounts due SBA or the federal government.

In conclusion, industry best practices and changes in the SBA portfolio, programs, and available data necessitate that SBA's Risk Rating model be periodically redeveloped. This notice marks the second redevelopment of SBA's Risk Rating model. In addition to the redevelopment, SBA has and will continue to perform annual validation testing on the

calculated composite Risk Ratings, and will further refine the model as necessary to maintain or possibly improve the predictiveness of its risk scoring.

Authority: 15 U.S.C. 633(b)(3); 15 USC 634(b)(6) and (7); 15 USC 687(f); and 13 C.F.R. 120.1015.

Maria Contreras-Sweet, Administrator.

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